

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
25 August 2005 (25.08.2005)

PCT

(10) International Publication Number
WO 2005/077130 A3

(51) International Patent Classification⁷: **A61K 39/395**,
C07K 1/18, 16/00

(21) International Application Number:
PCT/US2005/004729

(22) International Filing Date: 10 February 2005 (10.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/521,047 11 February 2004 (11.02.2004) US
60/568,374 5 May 2004 (05.05.2004) US

(71) Applicant (*for all designated States except US*): **TANOX, INC.** [US/US]; 10301 Stella Link Road, Houston, TX 77025 (US).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **LIU, Hui** [US/US]; 6815 Academy, #32, Houston, TX 77025 (US). **TANG, Ke** [US/US]; 5415 Braesvalley, #770, Houston, TX 77096 (US).

(74) Agent: **LILJESTRAND, Cheryl, A.**; Tanox, Inc., 10301 Stella Link Road, Houston, TX 77025 (US).

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

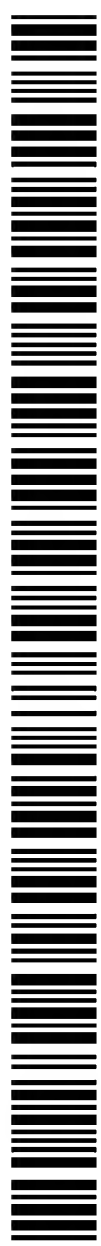
- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

(88) Date of publication of the international search report:
29 December 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: A METHOD FOR THE REMOVAL OF AGGREGATE PROTEINS FROM RECOMBINANT SAMPLES USING ION EXCHANGE CHROMATOGRAPHY

(57) Abstract: The present invention relates to processes for the removal of unwanted protein aggregates from antibody preparations. One process involves removal when the aggregate and antibody are very close in pl value ("Bind-Elute" process). Another process involves the removal when the aggregate and antibody are very close in net electric charge and retention time on ion exchange resin ("Bind-Washout" process). Using either process, at least 90% of the antibody is recovered and 70-90% of the aggregate is removed.



WO 2005/077130 A3